

REMARKS

Claims 1-29 are pending in this application. Claims 9-20 are withdrawn from consideration. By this Amendment, claims 1 and 8 have been amended and claims 21-29 have been added.

No new matter has been added by this Amendment. Support for the language added to claims 1 and 8 can be found, for example, in Figs. 2, 4, and 7-9 in the specification. Support for new claims 21 and 25 can be found, for example, in Figs. 2, 4, and 7-9 and paragraph 63 of the specification. Support for new claim 26 can be found, for example, in paragraphs 74-75. Support for claims 22 and 27 can be found in original claim 20 and paragraph 1. Support for new claims 23 and 28 can be found in paragraphs 1 and 2. Support for new claims 24 and 29 can be found in paragraphs 1 and 2. Block 382 of Figure 5 has been amended to say "Rotary Drive Device for Index Table 16."

I. Objection to the Specification

The title of the invention was objected to for allegedly not being descriptive. Further, the abstract of the disclosure was objected to as it allegedly failed to correspond to elected subject matter. Thus, to expedite prosecution of this application, Applicant has amended the title and abstract of the specification.

II. Rejection Under 35 U.S.C. §102(b)

Claims 1, 3-5 and 8 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 3,998,377 ("Metz"). This rejection is respectfully traversed.

The Patent Office alleges that the eyes (46) of a human observer who observes bonding sites between pads 12 of circuit package 10 and leads 21 of the copper foil 18 as disclosed by Metz are equivalent to the at least one image-taking device as recited in claims 1 and 8. The Patent Office further alleges that an area of tin plating 20 with which the line of sight 46 by the eyes of the observer intersects as taught by Metz is equivalent to the at least

one indicium provided on the back surface of PCB or board 18 as recited in claims 1 and 8.

Applicant strenuously disagrees with these allegations.

Initially, it is submitted that an organ of a human body such as the eyes is not considered to be a "device." In other words, the visual acuity of a human observer or operator is not equivalent to the at least one image-taking device recited in claims 1-8.

However, even if a human eye is considered an image-taking device as recited in claims 1 and 8, Metz still does not teach or suggest operating at least one image-taking device to take an image of each of at least one indicium..., said image being taken in an upward direction toward said back surface as recited in claims 1 and 8. Metz teaches that the line of sight 46 runs in the downward direction toward the copper foil 18 (conductors 16 formed on substrate 14), to observe the bonding sites through transparent deformable planar member 24. See column 3, lines 45-48, column 5, lines 52-57, column 6, line 65 through column 7, line 6 and column 7, lines 49-52.

According to claims 1 and 8, the "back surface" on which the at least one indicium is provided is defined as a lower surface, while the "front surface" on which the working operation is performed is an upper surface. Accordingly, in the invention as taught by Metz, the line of sight 46 must be in an upward direction toward the lower surface of the element 18. However, Metz clearly teaches that the line of sight 46 is in the downward direction. See Figs. 1 and 2 of Metz.

Thus, Applicant submits that Metz does not teach or suggest operating at least one image-taking device to take an image of each of at least one indicium..., said image being taken in an upward direction toward said back surface as recited in claims 1 and 8.

Therefore, Applicant submits that claims 1, 3-5 and 8 are allowable. Reconsideration and withdrawal of the rejection are thus respectfully requested.

III. Rejections Under 35 U.S.C. §103(a)

A. Metz in view of Salatino

Claim 2 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Metz in view of U.S. Patent No. 5,887,343 ("Salatino"). This rejection is respectfully traversed.

Salatino does not remedy any of the deficiencies of Metz. In particular, Salatino does not teach or suggest operating at least one image-taking device to take an image of each of at least one indicium..., said image being taken in an upward direction toward said back surface as recited in claim 1. Salatino simply discloses fiducial marks or incia 24 located on the upper surface of integrated circuit 20. See column 3, lines 64-65 of Salatino.

Thus, Applicants respectfully submit that claim 2 is patentable over Metz in view of Salatino. Reconsideration and withdrawal of the rejection are thus respectfully requested.

B. Metz in view of Radobenko in view of Tsuda

Claims 6-7 were rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Metz in view of U.S. Patent No. 3,695,501 ("Radobenko"), and further in view of U.S. Patent No. 3,625,127 ("Tsuda"). This rejection is respectfully traversed.

Neither Radobenko nor Tsuda, either in combination or alone, remedies any of the deficiencies of Metz. In particular, Radobenko and Tsuda do not teach or suggest operating at least one image-taking device to take an image of each of at least one indicium..., said image being taken in an upward direction toward said back surface as recited in claim 1. Radobenko simply discloses a microscope 28 located above a wafer on top plate 33. See column 3, lines 16-18 of Radobenko. Tsuda discloses a camera 13 located above an object 6. See column 2, lines 3-5.

Thus, Applicants respectfully submit that claims 6 and 7 are patentable over Metz in view of Tadobenko in view of Tsuda. Reconsideration and withdrawal of the rejection are thus respectfully requested.

C. Metz in view of Hofmeister

Claim 8 was rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Metz in view of U.S. Patent No. 3,747,829 ("Hofmeister"). This rejection is respectfully traversed.

As explained in detail above, Metz does not teach or suggest operating at least one image-taking device to take an image of each of at least one indicium..., said image being taken in an upward direction toward said back surface as recited in claim 8. Hofmeister does not remedy this deficiency.

Hofmeister simply discloses a microscope 26 located above a work stage 16 on platform 14 to adjust the position of a pedestal 78. See column 3, lines 48-51 and column 5, lines 42-47 of Hofmeister.

For the foregoing reasons, Applicants submit that claim 8 is patentable over Metz in view of Hofmeister. Reconsideration and withdrawal of the rejection are thus respectfully requested.

IV. Reference Numerals

The Examiner requested a listing of the reference numerals and the corresponding recited limitations. Thus, following is such a table:

<u>RECITED LIMITATION</u>	<u>REFERENCE NUMERALS</u>
printed-wiring board	20
board supporting device	132, 400, 500
front surface of the board	272
back surface of the board	270
at least one image-taking device	140, 404, 522

V. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-29 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

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DEPOSIT ACCOUNT USE
AUTHORIZATION
Please grant any extension
necessary for entry;
Charge any fee due to our
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Amendments to the Drawings:

The attached replacement drawing sheet makes changes to Fig. 5 and replaces the original sheet with Fig. 5.

Attachment: Replacement Sheet